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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR 1650 MARKET STREET PHILADELPHIA, PA 19103			JEFFERY, JOHN A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/827,145	Applicant(s) ORR ET AL.	
	Examiner John A. Jeffery	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-8, 10-12, 14, 20, 29, 38, 42, 46-49, 54, 57, 58, and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735. Alban (US 4,780,595) discloses a portable electric heater comprising elongate vertical housing 16 that is supported on a floor via base 18. See col. 2, lines 55-57. Air blower 38 comprises a motor-driven impeller that directs air drawn into the enclosure through inlet 54 through vertically-disposed outlet openings 10. The air is heated by electric heating elements 42, 44 disposed between the air blower and the outlets. See Fig. 4.

The claims differ from the previously cited prior art in calling for the elevation of the heated exhaust air stream to be 20 inches or greater. Although Alban (US 4,780,595) does not state the exact height of the vertical heated air stream issuing from outlet openings 10, the outlet openings span the substantial length of the vertical enclosure as shown in Figs. 1 and 4. Moreover, as noted in col. 4, lines 8-16, such an

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outlet length enables the full length of a human subject standing next to the dryer to be exposed to hot air issuing therefrom.

A typical human's height is greater than 20 inches. Thus, Alban (US 4,780,595) implies that the vertical span of outlets 10 should be greater than 20 inches to achieve the goals of the reference -- namely, to uniformly dry the entire length of a human subject with heated air. Therefore, it would have been obvious to one of ordinary skill in the art to provide a vertical span of heated air of greater than 20 inches to uniformly dry the entire length of a human subject standing next to the dryer.

The claims also differ from the previously cited prior art in calling for a vertically-oriented electric heating element to be disposed proximate the outlet and oriented substantially along the longitudinal housing length such that substantially all of the exhaust air stream is directed therethrough. Orienting an electric heating element assembly adjacent the outlet and along the vertical length of a body dryer, however, is well known in the art. WO03/009735 discloses a body dryer comprising an elongated vertical housing 11 that contains a long, vertically-oriented electric heating element assembly 31 disposed parallel to vertical outlet slot 29. See abstract and Figs. 2-4 and 18-20. See also Page 19, lines 8-25, Page 26, lines 24-31, and Page 32, line 25 - Page 33, line 8. By locating a vertical heating element parallel to a vertical outlet, a narrow blade of uniformly heated air is directed at all points along the user's height while the user stands next to the outlet. In view of WO03/009735, it would have been obvious to one of ordinary skill in the art to orient the electric heaters vertically along the outlet slot

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of the previously described apparatus to narrow blade of uniformly heated air is directed at all points along the user's height during drying.

Regarding claims 10 and 57, although WO03/009735 does not state the fan length-to-diameter aspect ratio, the recited 2:1 ratio is merely an optimization well within the realm of routine experimentation by skilled artisans. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955). Here, because the general conditions of the claim are met by the prior art, namely an elongated fan assembly oriented in the vertical housing, the specific fan aspect ratio is merely an optimization of such a elongated assembly readily discoverable via routine experimentation and does not therefore constitute a patentably distinguishable feature.

Regarding claims 4-6, although Alban (US 4,780,595) does not disclose the exact vertical aspect ratio, comparative ratio, or comparison between elevation and maximum width of the horizontal cross section dimension, such parameters constitute mere engineering design preference well within the realm of routine experimentation by skilled artisans. Moreover, such parameters merely set forth optimum values of heater dimensions well within the scope of routine experimentation by those skilled in the art. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955).

Regarding claim 8, note pre-assembled air blower "cartridge" 38 in Fig. 4. Although Alban (US 4,780,595) is silent whether the blower cartridge is pre-tested, pre-testing electrical components prior to installation in devices employing such components, however, is a well-known quality control technique in the art. The feature does not patentably distinguish over Alban (US 4,780,595).

Regarding claim 14, note the dual speed of fan 38 effected by relay 66 as described in col. 3, lines 35-39.

Regarding claim 42, the dryer of Alban (US 4,780,595) may be mounted to a wall. Col. 3, lines 62-63.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of in view of WO03/009735 and further in view of Kunz (US 3,725,640). The claim differs from the previously cited prior art in calling for a centrifugal blower. But centrifugal blowers in portable electric space heaters are well known in the art as evidenced by Kunz (US 3,725,640). Kunz (US 3,725,640) discloses in col. 3, line 63 - col. 4, line 24 that the blower establishes centrifugal forces within the housing due to the radial outward and circular airflow movement. Such forces increase the pressure that aids in discharging the air from the housing. In view of Kunz (US 3,725,640), it would have been obvious to one of ordinary skill in the art to provide a centrifugal blower in the previously described apparatus to establish centrifugal forces within the housing due to airflow movement, thus increasing the pressure that aids in discharging the air from the housing.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735 and further in view of Bailey (US Des. 468,005). The claim differs from the previously cited prior art in calling for a remote control device. Remotely controlling portable space heaters, however, is well known in the art as evidenced by Bailey (US Des. 468,005) noting the remote control unit in Figs. 1-5. Such a control enables the user to control heater operation at a location distant from the heater. In view of Bailey (US Des. 468,005), it would have been obvious to one of ordinary skill in the art to provide a remote control for the previously described apparatus to enable the user to control heater operation at a location distant from the heater.

Claims 15-18, 21, 22, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735 and further in view of Schafer (US 2004/0213559). The claims differ from the previously cited prior art in calling for rotating or oscillating the elongate housing relative to the support surface about an axis parallel to the housing's vertical axis. But oscillating longitudinal housings in a body dryer is well known in the art. Schafer (US 2004/0213559), for example, discloses in Fig. 5 an oscillation means comprising a linkage arm 70 connected to wheel 76. Because the lowermost elongated housing 10 is fixed to the base via post 15, the lowermost housing -- and all other housings removably stacked thereon -- oscillate about the array's vertical axis. Such oscillation sweeps the airflow about a defined

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angle thus helping the user dry his or her body without excessive movement. See also Fig. 1 and Para. 0027. In view of Schafer (US 2004/0213559), it would have been obvious to one of ordinary skill in the art to oscillate the elongated housing of the previously described apparatus to sweep the airflow about a defined angle thus helping the user dry his or her body without excessive movement.

The claims also differ from the previously cited prior art in calling for a grill covering the outlet opening. But grills are well known in the art as shown by Schafer (US 2004/0213559) noting grills 26-32. See Para. 0023. As is well known in the art, grills protect the user from injury by preventing human contact with heating elements and fan blades, yet enable heat and airflow therethrough. In view of Schafer (US 2004/0213559), it would have been obvious to one of ordinary skill in the art to provide protective grills in the previously described apparatus to prevent human contact with heating elements and fan blades within the housing, yet enable heat and airflow therethrough.

The claims also differ from the previously cited prior art in calling for a detachable base. Schafer (US 2004/0213559) in Fig. 3-6 discloses assembling a body dryer tower by detachably coupling a plurality of cylindrical convection heater modules 4, 6, 8 to a base comprising module 10 and plate 14. As noted in Para. 0025, the tower can be made taller or shorter by removing or adding modules. Moreover, regarding claim 40, such modularity is useful for dismantling the apparatus for compact, efficient packaging and shipping. See the last sentence of Para. 0026. In view of Schafer (US 2004/0213559), it would have been obvious to one of ordinary skill in the art to provide

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the ability to decouple the base from the remainder of the apparatus so that the structure could be dismantled and packaged for shipping when not in use.

Regarding claim 41, because module 10 is removable from base 14 via post 15 and pin 69, the base of Schafer (US 2004/0213559) is a "split base" that can be separated.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Schafer (US 2004/0213559) and further in view of Shih-Chin (US 4,703,152). The claim differs from the previously cited prior art in calling for a controller for controlling a mechanism function for oscillating or rotating. Such controllers, however, are well known in the art as evidenced by Shih-Chin (US 4,703,152). In col. 5, line 25 - col. 6, line 2, Shih-Chin (US 4,703,152) discloses a portable space heater with a series of control buttons that select either no rotation or the desired angle of oscillation. In view of Shih-Chin (US 4,703,152), it would have been obvious to one of ordinary skill in the art to provide such control means in the previously described apparatus to control the degree of oscillation automatically thereby enabling the user to quickly and easily change the oscillation angle.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Schafer (US 2004/0213559) and further in view of Covault (US 3,575,582). The claim differs from the previously cited prior art in calling for the grill to comprise air-directing vanes. But providing vanes on grills for

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electric space heaters is well known in the art. Covault (US 3,575,582), for example, discloses grill 24 having vanes 26 thereon. The vanes direct airflow in a certain direction dictated by the vane. In view of Covault (US 3,575,582), it would have been obvious to one of ordinary skill in the art to provide vanes on the grill of the previously described apparatus to direct airflow in a certain direction dictated by the vane thus increasing efficiency.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Schafer (US 2004/0213559) and further in view of Bailey (US Des. 468,005). The claim differs from the previously cited prior art in calling for the grill to be an integral part of the housing. But integral grills on housings for space heaters is well known in the art. Bailey (US Des. 468,005), for example, shows a grill formed integral with the housing in Fig. 1. Such a structure not only reduces apparatus parts, it also facilitates forming the grill and housing in a single manufacturing process such as molding or casting. In view of Bailey (US Des. 468,005), it would have been obvious to one of ordinary skill in the art to integrally form the grill and housing in the previously described apparatus to not only reduce apparatus parts, but also form the integral grill and housing in a single manufacturing process such as molding or casting.

Claims 25-28, 65-71, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Schafer (US

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2004/0213559) and further in view of Jones (US 4,197,447). The claim differs from the previously cited prior art in calling for a distinct air containment frame between the heater and the grill. But such structures are well known in the art as evidenced by Jones. Jones discloses an electric convection space heater comprising an "air containment frame" formed by (1) sheet 42, (2) bottom wall 18 (Fig. 1) or bottom wall 15 (Fig. 2), and (3) side wall 16 that entrains and directs heated air in contact with "air alignment elements" 44 prior to exit. Such a structure confining the air to a predetermined passage maximizes heat transfer to the surrounding air. See col. 1, lines 54-56 and col. 3, lines 36-40. In view of Jones (US 4,197,447), it would have been obvious to one of ordinary skill in the art to provide an air containment frame with air alignment elements in the airflow path of the previously described apparatus to maximizes heat transfer to the surrounding air prior to exit.

Regarding claims 27 and 28, it is well settled that the recitation that a structure is integral, as contrasted to constituent parts which are rigidly secured together, is merely a matter of obvious engineering design choice. See *In re Fridolph*, 50 CCPA 745, 89 F.2d 509, 135 USPQ 319. See also *In re Lockhart*, 90 USPQ 214 (CCPA 1951), *In re Larson*, 144 USPQ 347, and *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Although the air containment frame and air alignment elements of Jones (US 4,197,447) are separate parts secured together and not integral, merely forming the structure as an integral structure is mere engineering design choice does not patentably distinguish over the secured structure of Jones (US 4,197,447). Moreover, no criticality is seen in

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the integral formation of the containment frame and air alignment elements in lieu of separate pieces secured together as shown in the prior art.

Claim 30-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Goldstein (US RE37,642) and further in view of Yeh (US 5,192,853). The claim differs from the previously cited prior art in calling for the electric heating element to be a 1500-watt PTC heater. But PTC heating elements in portable electric convection space heaters, however, are well known in the art. Goldstein (US RE37,642), for example, discloses PTC electric heating element assemblies 37-1, 37-2 through which air flows prior to exit. See Fig. 5. As noted in col. 1, lines 30-47, PTC heaters are preferable over resistance wire heaters due to PTC heaters' self-limiting temperature characteristics that avoid overheating. Moreover, PTC heaters are more durable than wire-type heaters. *Id.* In view of Goldstein (US RE37,642), it would have been obvious to one of ordinary skill in the art to use a PTC heater in lieu of the resistance wire heater of the previously described apparatus to (1) avoid overheating by employing a self-regulating heating element, and (2) utilize a more durable heater, thus prolonging heating element life.

Although Goldstein (US RE37,642) does not disclose the power rating of the PTC heaters, 1500-watt PTC heaters are nevertheless well known in the art. Yeh (US 5,192,853), for example, notes in col. 4, lines 44-49 that prior art PTC heating assemblies typically generate 1500 watts of heat energy. In view of Yeh (US 5,192,853), it would have been obvious to one of ordinary skill in the art to provide a

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1500-watt PTC heater in the previously described apparatus to produce sufficient heat from the PTC assembly to sufficiently warm a space to be heated.

Regarding claims 32-34 and 37, although WO03/009735 does not state the dimensions of the elongate electric heating assembly, the assembly nonetheless has a substantial vertical aspect ratio as best seen in Fig. 18. The claims merely recite optimum values within the scope of routine experimentation by those skilled in the art. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955). Here, because the general conditions of the claim are met by the prior art, namely a significant vertical aspect ratio for the electric heating assembly, the specific aspect ratio and dimensions claimed are merely optimizations of such values readily discoverable via routine experimentation and do not therefore constitute a patentably distinguishable feature.

Regarding claims 35 and 36, note the row of PTC elements 20 flanked by heat dissipation fins 36 in Fig. 2 of Yeh (US 5,192,853). And, as noted in col. 3, lines 2-5 of Goldstein (US RE37,642), PTC pellets are typically made of ceramic material.

Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735 and further in view of Tedioli (US 4,760,243). The claims differ from the previously cited prior art in calling for (1) the mounting means and base to comprise a unitary component, and (2) a bracket.

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Although the wall mounting details of Alban (US 4,780,595) are not disclosed, wall-mounting a convection space heater that also can be floor-mounted is well known in the art. Tedioli (US 4,760,243), for example discloses a convection heater whose base 4 also functions as a mounting means that fits into bracket 5 mounted on wall M.

Compare Figs. 1 and 2. Such an arrangement reduces apparatus parts by duplicating support functions of the base (i.e., for floor support and wall support). In view of Tedioli (US 4,760,243), it would have been obvious to one of ordinary skill in the art to provide a unitary base and mounting means for the previously described apparatus to reduce apparatus parts by duplicating support functions of the base (i.e., for floor support and wall support).

Regarding claim 44, no criticality is seen in forming the mounting feature integrally or as a separate component in view of applicant's statement on Page 22, lines 7-10 of the instant specification that notes that such mounting could either be separate or integral as desired.

Claims 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735, Goldstein (US RE37,642) and further in view of Yeh (US 5,192,853). The claim differs from the previously cited prior art in calling for the electric heating element to be a PTC heater. But PTC heating elements in portable electric convection space heaters, however, are well known in the art. Goldstein (US RE37,642), for example, discloses PTC electric heating element

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assemblies 37-1, 37-2 through which air flows prior to exit. See Fig. 5. As noted in col. 1, lines 30-47, PTC heaters are preferable over resistance wire heaters due to PTC heaters' self-limiting temperature characteristics that avoid overheating. Moreover, PTC heaters are more durable than wire-type heaters. *Id.* In view of Goldstein (US RE37,642), it would have been obvious to one of ordinary skill in the art to use a PTC heater in lieu of the resistance wire heater of the previously described apparatus to (1) avoid overheating by employing a self-regulating heating element, and (2) utilize a more durable heater, thus prolonging heating element life.

Regarding claim 52, note the row of PTC elements 20 flanked by heat dissipation fins 36 in Fig. 2 of Yeh (US 5,192,853). And, as noted in col. 3, lines 2-5 of Goldstein (US RE37,642), PTC pellets are typically made of ceramic material.

Regarding claim 53, although Alban (US 4,780,595) does not disclose the exact vertical aspect ratio, such a parameter constitutes mere engineering design preference well within the realm of routine experimentation by skilled artisans. Moreover, such a parameter merely sets forth optimum values of heater dimensions well within the scope of routine experimentation by those skilled in the art. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955).

Claims 55, 56, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of WO03/009735 and further in view of

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Schafer (US 2004/0213559). The claims differ from the previously cited prior art in calling for a grill covering the outlet opening. But grills are well known in the art as shown by Schafer (US 2004/0213559) noting grills 26-32. See Para. 0023. As is well known in the art, grills protect the user from injury by preventing human contact with heating elements and fan blades, yet enable heat and airflow therethrough. In view of Schafer (US 2004/0213559), it would have been obvious to one of ordinary skill in the art to provide protective grills in the previously described apparatus to prevent human contact with heating elements and fan blades within the housing, yet enable heat and airflow therethrough.

Regarding claim 56, although Alban (US 4,780,595) does not disclose the exact elevation distance, such a parameter constitutes mere engineering design preference well within the realm of routine experimentation by skilled artisans. Moreover, such a parameter merely sets forth optimum values of outlet and grill dimensions well within the scope of routine experimentation by those skilled in the art. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955).

The claims also differ from the previously cited prior art in calling for a detachable base. Schafer (US 2004/0213559) in Fig. 3-6 discloses assembling a body dryer tower by detachably coupling a plurality of cylindrical convection heater modules 4, 6, 8 to a base comprising module 10 and plate 14. As noted in Para. 0025, the tower can be made taller or shorter by removing or adding modules. Moreover, regarding claim 61,

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such modularity is useful for dismantling the apparatus for compact, efficient packaging and shipping. See the last sentence of Para. 0026. In view of Schafer (US 2004/0213559), it would have been obvious to one of ordinary skill in the art to provide the ability to decouple the base from the remainder of the apparatus so that the structure could be dismantled and packaged for shipping when not in use.

Regarding claim 60, because module 10 is removable from base 14 via post 15 and pin 69, the base of Schafer (US 2004/0213559) is a "split base" that can be separated.

Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of in view of WO03/009735, Schafer (US 2004/0213559), Jones (US 4,197,447), and further in view of Bailey (US Des. 468,005). The claim differs from the previously cited prior art in calling for the grill to be an integral part of the housing. But integral grills on housings for space heaters is well known in the art. Bailey (US Des. 468,005), for example, shows a grill formed integral with the housing in Fig. 1. Such a structure not only reduces apparatus parts, it also facilitates forming the grill and housing in a single manufacturing process such as molding or casting. In view of Bailey (US Des. 468,005), it would have been obvious to one of ordinary skill in the art to integrally form the grill and housing in the previously described apparatus to not only reduce apparatus parts, but also form the integral grill and housing in a single manufacturing process such as molding or casting.

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Claims 74-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alban (US 4,780,595) in view of Schafer (US 2004/0213559), WO03/009735, Goldstein (US RE37,642), and further in view of Yeh (US 5,192,853). The claims differ from the previously cited prior art in calling for the electric heating element to be a PTC heater. But PTC heating elements in portable electric convection space heaters, however, are well known in the art. Goldstein (US RE37,642), for example, discloses PTC electric heating element assemblies 37-1, 37-2 through which air flows prior to exit. See Fig. 5. As noted in col. 1, lines 30-47, PTC heaters are preferable over resistance wire heaters due to PTC heaters' self-limiting temperature characteristics that avoid overheating. Moreover, PTC heaters are more durable than wire-type heaters. *Id.* In view of Goldstein (US RE37,642), it would have been obvious to one of ordinary skill in the art to use a PTC heater in lieu of the resistance wire heater of the previously described apparatus to (1) avoid overheating by employing a self-regulating heating element, and (2) utilize a more durable heater, thus prolonging heating element life.

Regarding claim 78, note the row of PTC elements 20 flanked by heat dissipation fins 36 in Fig. 2 of Yeh (US 5,192,853). And, as noted in col. 3, lines 2-5 of Goldstein (US RE37,642), PTC pellets are typically made of ceramic material.

Regarding claims 75-77, although the prior art does not disclose the exact vertical aspect ratio or heating element dimensions, such parameters constitute mere engineering design preference well within the realm of routine experimentation by skilled artisans. Moreover, such a parameter merely sets forth optimum values of heater dimensions well within the scope of routine experimentation by those skilled in

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the art. It is well settled that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955).

Response to Arguments

Applicant's arguments have been considered but are deemed to be moot in view of the new grounds of rejection. Nevertheless, the examiner will respond to several issues raised in applicant's remarks.

Electric Convection Space Heaters and Hot Air Dryers Constitute Analogous Art.

Applicant first asserts that the references relied upon by the examiner allegedly are non-analogous art. Remarks, at 27. Specifically, applicant contends that electric heaters for heating a room or space not only are not in the same field of endeavor as dryers, but are purportedly not reasonably pertinent to the problem applicant is trying to solve. Remarks, at 27-28.

The examiner respectfully disagrees. The prior art is replete with examples of electrically-heated, forced-air convection space heaters also functioning as dryers. For example, Tedioli (US 4,760,243) -- previously made of record and cited in the rejections above -- discloses using an electrically-heated, forced-air convection space heater for drying functions as well. Note the patent's title ("Apparatus for Letting Out Hot Air, Used as Heater and Drier Particularly in Bathrooms") and col. 1, lines 55-61. (emphasis added.) Compare Fig. 1 with Fig. 2. Note that Tedioli's distinguishes the term "heater"

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(a hot air room heater) from "drier" (hot air heater for drying articles). Compare col. 1, lines 8-16 with col. 1, lines 17-25.

As another example, FR2136153 ("FR 153") utilizes a single convection space heater for drying purposes. Compare Figs. 1 and 2 with Figs. 3-5. See also Tedioli, col. 1, lines 37-38 (acknowledging the ability of FR 153's heated air apparatus to function as both a room air heater and a dryer).

In short, utilizing electrically heated, forced-air convection space heaters to not only heat rooms, but also function as driers is well known in the art. Therefore, not only is there no basis in fact to support applicant's contention that the cited prior art hot air room heaters are somehow not analogous to cited prior art hot air dryers, the argument actually runs counter to teachings in the art.

MPEP 2144.03 Does Not Apply Because the Examiner Was Not Taking Official Notice.

Applicant further alleges that the examiner has failed to establish a prima facie case of obviousness regarding the claimed dimensions, aspect ratio, relative sizes, etc. Remarks, at 30. Applicant has challenged the examiner to provide prior art reference(s) to support his position that the claimed parameters are mere optimizations well within the realm of routine experimentation by skilled artisans. Applicant referred the examiner to MPEP 2144.03 as allegedly mandating the examiner to provide such a reference.

The examiner acknowledges that MPEP 2144.03 requires the examiner to provide a reference when official notice is taken of facts beyond the record, such as

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those based upon common knowledge or when the examiner asserts that a fact is well-known in the art. Indeed, if the examiner takes official notice of such facts, the facts must be "capable of such instant and unquestionable demonstration as to defy dispute." In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

But the examiner is not taking official notice of common knowledge or such well-known facts "capable of such instant and unquestionable demonstration as to defy dispute." Rather, the examiner was merely following well-established legal principles set forth in case law. In short, applying established law to a factual situation is not taking official notice. Consequently, the requirements of MPEP 2144.03 do not apply in this situation. Therefore, the examiner does not need to supply a reference in support of his position as applicant contends. Rather, the law itself provides ample evidence of the legal grounds for the examiner's position.

The claimed values -- even if not expressly disclosed in the prior art -- are merely the result of optimizing result-effective variables. Such optimum values are readily obtainable through routine experimentation and optimization by skilled artisans under *Aller*. Such routine optimization is simply not patentable. The rejection is proper.

Jones Discloses Air Alignment Elements and an Air Containment Frame.

Applicant argues that Jones does not disclose air alignment elements or an air containment frame. But the scope and breadth of the claim language did not preclude the citation of Jones.

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). One must bear in mind that, especially in nonchemical cases, the words in a claim are generally not limited in their meaning by what is shown or disclosed in the specification. It is only when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language. In re Vogel, 422 F.2d 438, 441, 164 USPQ 619, 622 (CCPA 1970).

As noted in the rejections, Jones discloses an electric convection space heater comprising an "air containment frame" formed by (1) sheet 42, (2) bottom wall 18 (Fig. 1) or bottom wall 15 (Fig. 2), and (3) side wall 16 that entrains and directs heated air in contact with "air alignment elements" 44 prior to exit. Such a structure confining the air to a predetermined passage maximizes heat transfer to the surrounding air. See col. 1, lines 54-56 and col. 3, lines 36-40. The limitations are therefore met given the terms their broadest reasonable interpretation.

The WO03/009735 Reference Qualifies as Prior Art for Features Not Originally Disclosed in the Parent Application.

Applicant alleges that WO03/009735 ("WO 735") is not prior art because the filing date of the parent application of the instant CIP application precedes the reference's publication date. Remarks, at 31.

The instant CIP application's filing date, however, is after WO 735's publication date. Applicant is not entitled to the parent application's filing date for the subject matter added not present in the parent application. Therefore, the WO 735 application in fact constitutes prior art for the subject matter unique to the CIP application.

Applicant's assertion that "various features of the present application" have a priority date that precedes the WO 735 application may be true, but such a broad, sweeping statement hardly suffices to overcome the examiner's prima facie case. In short, once the examiner has met his burden of production, the burden then shifts to applicant to overcome the examiner's prima facie case. The examiner respectfully contends that WO 735 is prior art for limitations that were not originally disclosed and the rejections based on WO 735 are therefore proper.

Merely asserting that WO 735 is not prior art for originally disclosed features is not enough. At a minimum, applicant must provide evidence to show that the claimed features in all claims where the reference was cited (i.e., all pending claims) do not incorporate subject matter not originally disclosed.

Final Rejection

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "John A. Jeffery". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**JOHN A. JEFFERY
PRIMARY EXAMINER**

2/18/05